

Anaplasmosis

What is anaplasmosis?

January 2025

In Indiana, the blacklegged tick (*Ixodes scapularis*) transmits anaplasmosis. Anaplasmosis is a tick-borne disease caused by the bacterium *Anaplasma phagocytophilum*. The bacterium was previously known by other names, including *Ehrlichia equi* and *Ehrlichia phagocytophilum*, and the disease was previously known as human granulocytic ehrlichiosis (HGE).

What are the symptoms of anaplasmosis?

Signs and symptoms of anaplasmosis typically begin within 1-2 weeks after the bite of an infected tick. People in the early stages of illness can experience mild to moderate flu-like symptoms, such as:

- Fever and chills
- Severe headache
- Muscle aches
- Nausea, vomiting, diarrhea, or loss of appetite

Rarely, if treatment is delayed or if there are other medical conditions present, severe illness can occur. Signs and symptoms of severe illness can include respiratory failure, bleeding problems, organ failure, and death. People over the age of 50 and those with weakened immune systems are more likely to develop serious illness.

How is anaplasmosis diagnosed and treated?

Diagnosis of anaplasmosis is based upon the presence of signs and symptoms, a history of possible exposure to ticks, and appropriate laboratory testing. Early recognition of symptoms is important. Doxycycline is the treatment of choice for adults and children of all ages with suspected anaplasmosis. Treatment is most effective at preventing severe complications and death if started early in the course of illness and should never be delayed while waiting for laboratory results. If you think you have anaplasmosis, contact your health care provider right away.

How to prevent anaplasmosis?

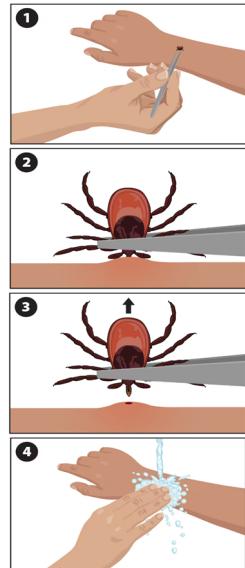
Blacklegged ticks are most encountered in wooded environments. In Indiana, nymphal ticks are most active during spring and summer and adults are most active during the fall and early spring. However, adult ticks may be active any time winter temperatures are above freezing. Wearing an EPA-registered insect repellent, reducing the amount of exposed skin, and checking your body for ticks daily are important steps in preventing tick bites. The best way to prevent anaplasmosis is to avoid tick bites. Visit the [Indiana Department of Health \(IDOH\) tick prevention page](#) for more information.

What should be done after a tick bite?

People who have removed an attached tick sometimes question if it should be tested for tick-borne diseases. Some laboratories offer this testing, but IDOH does not recommend it. If the tick tests positive, it does not necessarily indicate the individual is infected; if the tick tests negative, it may provide a false security as the individual could've been unknowingly bitten by a different infected tick.

In instances where you notice an attached tick, follow the steps below for proper removal.

1. Use clean, fine-tipped tweezers for tick removal. In instances where tweezers are not available shield your fingers with a paper towel, tissue, or gloves.
2. Grasp the tick as close to the skin's surface as possible.
3. Pull upward with steady even pressure. Don't twist or jerk the tick; this can cause the mouth-parts to break off and remain in the skin. If this happens, remove the mouth-parts with tweezers. If you cannot remove the mouth easily with tweezers, leave alone and let the skin heal.
4. After removing the tick, thoroughly clean the bite area and your hands with rubbing alcohol or soap and water.



More Information

For more information on anaplasmosis, visit the IDOH anaplasmosis webpage.

